

WHAT IS CLAIMED IS:

- Sub D*
- ~~1. An electronic component chip feeder for feeding electronic component chips, comprising:
a supplying system for supplying a plurality of electronic component chips in an aligned relationship; and
a cleaning device disposed in an intermediate portion of said supplying system for cleaning outer surfaces of the electronic component chips.~~
- ~~2. An electronic component chip feeder according to Claim 1, wherein said supplying system comprises a hopper into which a large number of electronic component chips is supplied; a buffer portion connected to the hopper for transferring electronic component chips in an aligned relationship; and a chute portion connected to the rear stage of the buffer portion for feeding electronic component chips one at a time, and wherein said cleaning device is disposed between the buffer portion and the chute portion.~~
- ~~3. An electronic component chip feeder according to any one of Claims 1 and 2, wherein said cleaning device is provided with a grinding device for grinding outer surfaces of electronic component chips.~~
- ~~4. An electronic component chip feeder according to Claim 3, wherein the grinding device comprises an abrasive belt and a driving source for driving the abrasive belt.~~

5. An electronic component chip feeder according to Claim 4, further comprising a conveyor belt for conveying electronic component chips, wherein said conveyor belt serves as well as the abrasive belt.

6. An electronic component chip feeder according to any one of Claims 1 to 5, wherein said cleaning device is provided with a washing device for washing outer surfaces of electronic component chips by a washing liquid.

7. A method for manufacturing electronic devices obtained by equipping with electronic component chips on a printed circuit board and so forth, comprising the steps of:

supplying a plurality of electronic component chips in an aligned relationship; and cleaning outer surfaces of the electronic component chips.

8. A method according to Claim 7,
wherein said step of supplying a plurality of electronic component chips comprises the steps of:

supplying a plurality of electronic component chips by a hopper;
transferring a plurality of electronic component chips by a buffer portion; and
feeding a plurality of electronic component chips one at a time by a chute portion disposed in the rear stage of the buffer portion,

and wherein said step of cleaning outer surfaces of the electronic component chips is provided between said step of transferring a plurality of electronic component chips by a buffer portion and said step of feeding a plurality of electronic component chips by a chute portion.

- ~~Sub A2~~
9. A method according to any one of Claims 7 and 8, wherein said step of cleaning outer surfaces of the electronic component chips comprises a process of grinding outer surfaces of electronic component chips.
10. A method according to Claim 9, wherein the process of grinding outer surfaces of electronic component chips is carried out with an abrasive belt and a driving source for driving the abrasive belt.
11. A method according to Claim 10, wherein said step of transferring a plurality of electronic component chips is provided with a transferring belt for transferring electronic component chips and the transferring belt serves as well as the abrasive belt.
- ~~Sub A2~~
12. A method according to any one of Claims 7 to 11, wherein said step of cleaning outer surfaces of the electronic component chips is performed by washing outer surfaces of electronic component chips using a washing liquid.
- Add A3*